Listing of Claims

This listing of claims will replace all prior versions, and listings of claims in the application.

1. (Original) A method to transfer data from a sending application to a receiving application in a computer environment, the method comprising the steps of:

if the receiving application posts a receive buffer exceeding a threshold size when posting a send for a pre-selected number of initial data blocks:

transferring subsequent data having sizes greater than the threshold size using direct memory access read operations:

detecting if the receiving application posts the receive buffer prior to posting the send;

if the receiving application posts the receive buffer prior to posting the send:

sending data and a RDMA receive advertisement in a message if the receiving application posts a send buffer having a size below the threshold size and one of data and RDMA Read information has not been received.

2. (Original) The method of claim 1 wherein the step of detecting if the receiving application posts the receive buffer prior to posting the send comprises the steps of:

determining if the receiving application posts a large receive buffer;

determining if the sending application does a send causing the receive posted by the receiving application to complete; and

determining if the receiving application does a small send.

3. (Original) The method of claim 1 further comprising the steps of :

detecting if the receiving application posts the receive buffer after posting the send;

if the receiving application posts the receive buffer after posting the send:

copying data to a send buffer having sufficient space at a beginning of the send buffer to put a receive advertisement in a header when a small send happens;

starting a timer;

putting the receive advertisement in the header if the receiving application posts a receive buffer exceeding the threshold size before the timer expires; and

sending the message.

4. (Original) The method of claim 3 wherein the step of detecting if the receiving application posts the receive buffer after posting the send comprises the steps of:

determining if the receiving application posts a large receive buffer;

determining if the receiving application performs a small send; and

determining if the sending application does a send causing the receive posted by receiving application to complete.

5. (Original) The method of claim 3 further comprising the step of putting a standard header onto the send data if the receiving application does not post a receive buffer exceeding the threshold size before the timer expires.

6. (Original) The method of claim 1 wherein the computer environment has at least one system area network.

7. - 14.   (Withdrawn)

15. (Currently Amended) <u>One or more</u> [[A]] computer-readable [[medium]] <u>media</u> having [[computer-]]executable instructions <u>that, when executed, implement a method</u> to transfer data from a sending application to a receiving application in a computer environment using direct memory access read operations, the <u>method comprising the following steps:</u> ~~computer-executable instructions performing the steps comprising:~~

detecting if the receiving application posts the receive buffer prior to posting the send;

if the receiving application posts a receive buffer prior to posting a send:

sending data and a RDMA receive advertisement in a message if the receiving application posts a send buffer having a size below the threshold size and one of data and RDMA Read information has not been received.

16. (Currently Amended) The <u>one or more</u> computer-readable medium of claim 15 wherein the step of detecting if the receiving application posts the receive buffer prior to posting the send comprises the steps of:

determining if the receiving application posts a large receive buffer;

determining if the sending application does a send causing the receive posted by the receiving application to complete; and

determining if the receiving application does a small send.

17. (Currently Amended) The <u>one or more</u> computer-readable medium of claim 15 having further [[computer-]]executable instructions for performing [[the]] <u>additional</u> steps comprising:

detecting if the receiving application posts the receive buffer after posting the send;

if the receiving application posts the receive buffer after posting the send:

copying data to a send buffer having sufficient space at a beginning of the send buffer to put a receive advertisement in a header when a small send happens;

starting a timer;

putting the receive advertisement in the header if the receiving application posts a receive buffer exceeding the threshold size before the timer expires; and

sending the message.

18. (Currently Amended) The <u>one or more</u> computer-readable medium of claim 17 wherein the step of detecting if the receiving application posts the receive buffer after posting the send <u>further</u> comprises the steps of:

determining if the receiving application posts a large receive buffer;

determining if the receiving application performs a small send; and

determining if the sending application does a send causing the receive posted by receiving application to complete.

19. (Currently Amended) The <u>one or more</u> computer-readable medium of claim 17 having further [[computer-]]executable instructions for performing [[the]] <u>an additional</u> step comprising putting a standard header onto the send data if the receiving application does not post a receive buffer exceeding the threshold size before the timer expires.

20. (Currently Amended) The <u>one or more</u> computer-readable medium of claim 15 wherein the computer environment has at least one system area network.

21.-28.   (Withdrawn)